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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|------------------------|--------------------------------|------------------------|
| 09/998,432 | 11/29/2001 | Charles Robert Granitz | 13DV14003 | 6295 |
| 6111 7590 10/25/2007 GENERAL ELECTRIC COMPANY GE AVIATION ONE NEUMANN WAY MD H17 CINCINNATI, OH 45215 | | | EXAMINER HARRISON, MONICA D | |
| | | | ART UNIT 2813 | PAPER NUMBER |
| | | | MAIL DATE 10/25/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/998,432

Applicant(s)

GRANITZ ET AL.

Examiner

Monica D. Harrison

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 5-19 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 20-25 and 28-33 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/13/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The affidavit under 37 CFR 1.132 filed 3/26/07 is sufficient to overcome the rejection of claims 1, 3, 4, 23, 26, 27 and 31-33 based upon the publication of the prior art is after the filing date of the instant application.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 20-25 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall et al (4,050,237) in view of Feeley Jr. (3,077,736).

3. Regarding claim 1, Pall et al discloses a method of operating a gas turbine engine (Figure 3, reference 30) which powers an aircraft (column 1, lines 6-17), said engine having a lubrication sump (Figure 3, reference 38) which vents air through a vent (Figure 3, reference 39) which produces an exit pressure at the exit of the vent (column 8, lines 21-44).

However, Pall et al does not disclose comprising: a) running the engine at idle; and simultaneously b) reducing said exit pressure.

Feeley Jr. discloses a) running the engine at idle; and simultaneously b) reducing said exit pressure (column 1, lines 22-28 and column 3, lines 59-65; *exit pressure is reduced because the engine is moving slow rather than fast which will decline in the amount of pressure made*).

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Pall et al, with the teachings of Feeley Jr., for the purpose of for removing and reclaiming liquids from gases, and particularly engine lubricating oil aerosols from leakage air in gas turbine engines.

4. Regarding claim 2, Pall et al discloses wherein the reducing of paragraph (b) comprises ducting a compressor discharge bleed (Figure 3, reference 34) to an eductor connected to the vent, to thereby draw air through the vent (Figure 3).

5. Regarding claim 3, Feeley Jr. discloses further comprising c) terminating the reducing of paragraph (b) when flow through the vent exceeds a floor (column 1, lines 22-28 and column 3, lines 59-65).

6. Regarding claim 4, Feeley Jr. discloses further comprising: c) raising speed of the engine; and d) terminating the reducing of paragraph (b) (column 1, lines 22-28).

7. Regarding claim 20, Feeley Jr. discloses wherein said reducing of exit pressure is accompanied by actuating an eductor having a mixing throat which provides an exit path t air exiting the sump vent (Figure 1, references 18 and 19).

8. Regarding claim 21, Pall et al discloses c) maintaining a flow restrictor downstream of the sump vent; and d) maintaining the eductor in a de-actuated state at cruise speed (Figure 3, reference 39).

9. Regarding claim 22, Feeley Jr. discloses wherein the flow restrictor (Figure 1, reference 18) within the mixing throat (Figure 1, reference 19).

10. Regarding claim 23, Feeley Jr. discloses c) terminating the reducing of said pressure during cruise operation (column 1, lines 22-28).

11. Regarding claim 24, Feeley Jr. discloses d) during cruise operation, using a flow restrictor to reduce flow through the vent below that which would occur in the absence of the flow restrictor (column 1, lines 22-28).

12. Regarding claim 25, Pall et al discloses c) maintaining an eductor in fluid communication with said vent; and d) using the eductor to maintain fluid flow through the vent above a predetermined minimum, said fluid flow being accompanied by said reducing of pressure (column 8, lines 33-44).

13. Regarding claim 28, Feeley Jr. discloses c) at cruise speeds, restricting flow through said vent (column 1, lines 22-28).

14. Regarding claim 29, Feeley Jr. discloses c) maintaining an eductor in fluid communication with said vent, which eductor i) reduces pressure in said vent when actuated, and ii) has a mixing throat which contains a flow restrictor; d) actuating said eductor during idle operation, to thereby reduce pressure in said vent; and e) terminating operation of said eductor prior to cruise operation (column 5, lines 73-75 thru column 6, lines 1-56).

15. Regarding claim 30, Feeley Jr. discloses wherein the flow restrictor reduces flow through the vent below that which would occur in the absence of the flow restrictor (column 5, lines 73-75 thru column 6, lines 1-43).

16. Regarding claim 31, Feeley Jr. discloses wherein the reducing accompanies the running (column 5, lines 73-75 thru column 6, lines 1-43).

17. Regarding claim 32, Feeley Jr. discloses wherein the terminating accompanies the raising (column 1, lines 22-28).

18. Regarding claim 32, Pall et al discloses wherein the sump is gravity fed (Figure 3, reference 38).

Claim Objections

19. Regarding claim 27, claim 27 has not been examined because it depends from a cancelled claim 26.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica D. Harrison whose telephone number is 571-272-1959. The examiner can normally be reached on M-F 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica D. Harrison
AU 2813

mdh
October 17, 2007


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